

memorandum

Albuquerque Operations Office
Amarillo Area Office

DATE: OCT 28 1997

REPLY TO
ATTN OF: AAO:SHS:KDM

SUBJECT: DOE/AL Response to the May 14, 1997 Explosion at Hanford's Plutonium Reclamation Facility

TO: Gene E. Runkle, Director, Occupational Safety and Health Division, AL

ATTN: Kim Delman, OSHD

In accordance with the Secretary of Energy Memorandum of August 4, 1997, Subject: as above, the following information is provided by the Department of Energy, Amarillo Area Office (DOE/AAO). The AAO Safety and Health Staff (SHS) had previously implemented a thorough review and approval process involving chemicals, chemical usage and chemical storage on the Pantex Plant. This review and approval process included the examination of the Toxic Chemical Release Inventory Forms (EPA Form R), Texas Tier Two Chemical Description Sheets (Tier Two Reports), Chemical Safety Vulnerability Studies and other documents and procedures. The SHS oversight of the contractor's Environment, Safety and Health (ESH) Line Management function has been conducted in the past and will continue to be conducted in the future. The DOE/AAO will also conduct a focused surveillance of the Standards/ Requirements Identification Documents (S/RIDS), contained within the ESH program, in order to fully implement the Secretary's Memorandum.

The AAO/SHS requests that an AL Technical Assistance Visit be scheduled for January 1998, to assist in the evaluation of the chemical safety program at the Pantex Plant. This will be further coordinated through the proper management process.

If you have any questions or require additional information, please contact Ken Meyers at (806) 477-3178 or Harry Griffith at 477-3198.



John R. Kirby
Acting Assistant Area Manager
For Nuclear Materials Operations

File No. 97-196

memorandum

Albuquerque Operations Office
Amarillo Area Office

DATE: DEC 5 1997

REPLY TO
ATTN OF: AAO:EPM:AJC

SUBJECT: Secretarial Memo Dated August 27, 1997, "Lessons Learned from the Emergency Response to the May 14, 1997 Explosion at Hanford Plutonium Reclamation Facility"

TO: K. L. Delman, OSH, Albuquerque Operations Office

Re: a) AAO Memorandum AAO:EPM:AJC, Serial No. 97-293, dated November 12, 1997.

Reference (a) stated that the Amarillo Area Office & Mason and Hanger Corporation have procedures in place for Lessons Learned in accordance with DOE Order 232.1 (Occurrence Reporting and Processing of Operational Information) but did not define how:

1. outgoing information is characterized and properly summarized, and
2. incoming information is evaluated, disseminated, implemented, and tracked through formal management systems.

The following are the details of the program per your request:

All Pantex Plant personnel must receive training during the annual General Employee Training (GET). As part of the GET training, personnel learn to immediately report out-of-the-ordinary situations to their supervisor, or in the absence of their supervisor, directly to the 24-hour Operations Center (OC). (It is important to note that in the November 1995 EH Independent Oversight Special Study of Occurrence Reporting Programs, Pantex received the highest rating given in the study in reportable issue identification and reporting categorization/threshold.) Reportable events or events with potential for categorization are immediately reported to the DOE Duty Officer (DO) and/or the appropriate DOE Facility Representative (FR). A conservative approach is used in the categorization and reporting of events. The DO and/or FR will assess the occurrence, and establish the need and depth of a critique. Critiques are the responsibility of the facility manager but are facilitated by trained critique leaders.

Events are categorized, reported, investigated, and assessed in accordance with Pantex Implementation Procedures and detailed site-specific categorization criteria for DOE O 232.1. This site-specific categorization criteria has been developed by the Contractor

DEC 5 1997

and approved by the DOE for Pantex Plant. Root cause analysis is performed by trained personnel using a graded approach. (Again, note that the November 1996 EH-33 report on Quality in Occurrence Reporting assigned Pantex a score of 93% for occurrence report quality or the highest score of the seven major DOE contractors evaluated. The EH-33 evaluation focused on consistency and completeness of report data including clarity of narrative descriptions, correctness of cause codes, and descriptions of corrective actions.)

Information from occurrence reports is trended and issued in quarterly reports. In addition, Pantex personnel who recognize an incident, experience, or practice that could benefit others, report their observations to their immediate management organization who ensure that the information is entered into the Pantex Lessons Learned Program. The Pantex Plant Lessons Learned Coordinator evaluates Lessons Learned, including those from other DOE sites and group lessons, to determine if the Lessons Learned are generic or applicable to a single or multiple division, and communicates the Lessons Learned accordingly. Selected generic Lessons Learned are distributed to all Plant employees via an appropriate vehicle, e.g. Required Reading Program or electronic mail. There are also Division Lessons Learned Coordinators who further disseminate Lessons Learned, determine if information communicated from other divisions has immediate value in preventing a negative event from recurring, and verify that Lessons Learned information is communicated.

If you have any questions or need additional clarification, please contact me at 806 477-6671.



A. J. Geronzi

Emergency Program Manager

cc w/o attachments:

D. Burke, EMD, MHC

A.J. Dionizo, OPS, MHC

D. Watkins, ES&H, MHC

D. Kelly, AAO

D. White, AAO

B. Mullen, AAO

P. Higgins, OMD, AL

G. Runkle, OSH&D, AL

G. Carroll, OMD, AL

File No 97-301

memorandum

Albuquerque Operations Office
Amarillo Area Office

DATE: NOV 26 1997

REPLY TO
ATTN OF: AAO:EPM:AJC

SUBJECT: DOE/AL Response to the May 14, 1997 Explosion at Hanfords's Plutonium Reclamation Facility

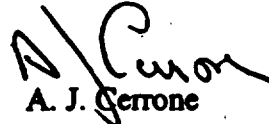
TO: K. L. Delman, OSH, Albuquerque Operations Office

- Ref: a) Memorandum OSHD:KLD (97003) dated Aug 14, 1997 on DOE/AL Response to the May 14, 1997 Explosion at Hanfords's Plutonium Reclamation Facility
b) Memorandum OSHD dated Sept 22, 1997 on DOE/AL Response to the May 14, 1997 Explosion at Hanfords's Plutonium Reclamation Facility
c) Memorandum OSHD:KLD dated Nov 07, 1997 on Secretarial Memorandum on the Assessment of Hazards Associated with Chemical and Radioactive Waste Storage Tanks and Ancillary Equipment

As requested by the memo's cited above, the Amarillo Area Office and Mason & Hanger Corporation have reviewed the procedures, various databases, and conducted a plant wide physical inventory of all chemicals in storage, in process and/or in the waste stream. The attached report is provided in response to above references, but specifically, no major changes are needed in the Pantex Plant as this review revealed that no excess, unused or unneeded chemicals on site that pose a significant risk for explosion, fire, or toxic release to the environment, or that cause a significant change in the vulnerability of this site to an accident of those types.

In Reference (a), it was requested that the Area Office assess the Technical competency of the Area Office personnel who would be expected to recognize issues concerning hazardous material along with Facility Design and Controls, safety documentation and authorization basis, hazardous material composition and proper waste handling and disposal. The Amarillo Area Training Office reviewed Safety and Health Staff, Risk Management, Facility Representatives, Emergency Program and Waste Operation personnel. They were all found to be in the Technical Qualification Program and trained in their respective areas.

This report completes all outstanding actions referenced above. If you have any questions or need additional clarification, please contact me at 806 477-6671.


A. J. Gerrone
Emergency Program Manager

cc w/o attachments:

D. Burke, EMD, MHC

A.J. Dionizo, OPS, MHC

C. Cantwell, ES&H, MHC

D. Watkins, ES&H, MHC

D. Kelly, AAO

D. White, AAO

B. Mullen, AAO

P. Higgins, OMD, AL

~~G. Runkle, OSH&D, AL~~

G. Carroll, OMD, AL

File No 97-298



since 1827

MASON & HANGER CORPORATION

NOV 13 1997

Mr. W.S. Goodrum
Area Manager
USDOE
Amarillo Area Office
Amarillo, Texas

Re: Pantex Plant Response to Issues Raised following the Hanford Plutonium Reclamation Facility Explosion

Dear Mr. Goodrum:

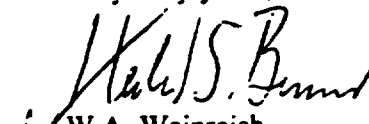
The attached report is provided in response to the following DOE memoranda:

- 1) AAO:AAMNMO:JRK, dated August 26, 1997, entitled "DOE/AL Response to the Hanford Plutonium Reclamation Facility Explosion," and
- 2) AAO:BMS:AJC, dated October 2, 1997, entitled "DOE/AL Response to the Hanford Plutonium Reclamation Facility Explosion."

The first reference requested a report addressing the initiatives identified by December 1, 1997. The second reference requested that the response be moved up to November 14, 1997. The attached report fulfills the November 14, 1997, requirement.

If you have any questions or need additional information regarding this report, please contact R.S. Watkins at (806)477-5559.

Very truly yours,


W.A. Weinreich
General Manager

WAW:ej
Attachment: As stated

GM97-04958-780

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Pantex Plant, Amarillo Texas
Report on Initiatives
from the
May 14, 1997 Explosion at Hanford's Plutonium Reclamation Facility

General

A review of the Pantex Plant chemical inventory has been completed. This review was precipitated by the initiatives cited in Secretary of Energy Federico Peña's memorandum of August 4, 1997, "DOE Response to the May 14, 1997, Explosion at Hanford's Plutonium Reclamation Facility." According to the guidance provided by the HQ DOE PRF Response Coordinating Group, the contractor is only responsible for two of the four initiatives; scrutinizing the chemical inventories and assessment of the staff technical competence.

In general, this review revealed that there are no excess, unused or unneeded chemicals on site that pose a significant risk for explosion, fire, or toxic release to the environment, or that cause a significant change in the vulnerability of this site to an accident of those types.

Hazardous Chemicals

On October 30, 1997, Pantex Plant conducted a plant-wide physical inventory of all chemicals in use, in storage, in process and/or in a waste stream. The final result of that inventory is still being examined; however, the initial review revealed that there are no previously unidentified hazards or potential accident situations for this site. Unlike the process at Hanford that had been shut down for over four years and slowly evolved into the catastrophic situation of the 14th of May, there are no containment vessels, storage tanks or abandoned processes at this site that may result in a hazardous or emergency situation. This inventory revealed a deficiency in the way we account for items that are consumed in process, depleted, recycled or wasted as a course of their use, in that, the empty containers are being disposed of without being removed from the main Plant-wide database for tracking chemical issues. As a result, the database showed considerably more material on hand than was actually here. At the outset of the inventory, the database showed approximately 126,250 items in inventory. Once completed, the actual inventory contains only just in excess of 50,000 items. Steps are being taken to fix the problem by requiring end-users to report the item barcode numbers to a central office for processing once the empty container is disposed of, and we are proposing the addition of automated barcode scanners to the empty container accumulation sites across the Plant to simplify and positively capture the process of disposal.

The inventory also showed that there are several established waste streams for items currently leaving the Plant, and that the wastes therein are well characterized and accounted for. A small amount of additional waste was identified as a part of the chemical inventory process, but not a significant increase over what was already known.

Staff Technical Competence

The technical competence for recognition and remediation of hazards by the staff at Pantex Plant has been reviewed and verified on a number of occasions. There have been no problems identified. Within the Environment Safety & Health Division we have the following numbers of degreed and nationally certified professionals:

Out of 201 persons employed in the ES&H Division, 11 have Doctorate degrees (5.5%); 51 have Masters degrees (25%); 56 have Bachelors degrees (28%); 27 have Associate degrees (13%); and 56 have a High School Diploma (28%) as their highest held degree.

There are a total of 91 nationally recognized professional credentials held in such fields as, National Registry of Radiation Protection Technologists (17), Associate Environmental Professional (10), Occupational Health and Safety Technologist (8), Certified Safety Professional (7), Professional Engineer (7), Certified Industrial Hygienist (5), Certified Health Physicist (5), and Certified Hazardous Materials Manager (5).

Additionally, the technical competence of the Line Management and Production Technician personnel has been established under DOE Order 5480.20a and rigorously examined through local technical qualification programs (Qual Cards), USQ issues, DNFSB reviews, SARs, JHSAs, and the Readiness Review process. A knowledge of the hazards associated with the chemicals in the operations and processes in their areas are an integral part of these reviews. Training programs are available to provide workers with additional assistance as needed.

Conclusions

Pantex Plant does not have any unrecognized or previously unanalyzed hazards that have been brought to the fore by this review. By virtue of the fact that this facility continues to operate and is not in standby or shutdown mode, there are very few, if any, hazards that are not dealt with on a continuing basis. Excess, unneeded or unused hazardous chemicals that have been identified as a part of this process will be expeditiously disposed of in the safest and most environmentally responsible manner. The technical competence of the staff, from the floor-level technician to the responsible manager, and including the support professionals, is well established. No additional training is required.